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Technology Loss Speeds China's Weapons Development

House Select Committee Report Documents Serious Chinese Theft of U.S. Nuclear Secrets

[NOTE: This is not an analysis but highlights from the report issued by the House Select Committee on U.S. National Security and Military/Commercial Concerns with the People's Republic of China. The full report is about 800 pages long, with a 37-page overview; additional material deemed too sensitive has been deleted from the publicly released text. This paper is based on the overview.]

On May 25, 1999, a bipartisan Select Committee chaired by Rep. Chris Cox (R-CA) was able to release a long-awaited declassified version of its report documenting the failure of U.S. counterintelligence to stop the People's Republic of China (PRC) from acquiring sophisticated nuclear technology. According to the Select Committee's report, the "PRC's theft of information on our most modern nuclear weapons designs enables the PRC to deploy modern forces much sooner than would otherwise be possible." The Select Committee's key findings cover several areas:

Theft of Thermonuclear Technology

- The People's Republic of China (PRC) has stolen design information on the United States' most advanced thermonuclear weapons. The stolen information includes:

  — Classified information on seven thermonuclear warheads, including every currently deployed thermonuclear warhead in the U.S. ballistic missile arsenal, as well as a number of associated reentry vehicles; and

  — Classified design information for an enhanced radiation weapon ("neutron bomb"), which neither the United States, nor any other nation, has yet deployed.

- The Select Committee judges that the PRC's next generation of thermonuclear weapons, currently under development, will exploit elements of stolen U.S. design information.

— The stolen U.S. secrets give the PRC design information on thermonuclear weapons "on a par with our own," in the Select Committee's judgement.

— "Currently deployed PRC ICBMs [Intercontinental Ballistic Missiles] targeted on U.S. cities are based on 1950s-era nuclear weapons designs. With the stolen U.S. technology, the PRC has leaped, in a handful of years, from 1950s-era strategic nuclear capabilities to the more modern thermonuclear weapons designs. These modern thermonuclear weapons took the United States decades of effort, hundreds of millions of dollars, and numerous nuclear tests to achieve." [Overview, p. vi]

Impact on Chinese Military and Intelligence Capabilities

- The Select Committee judges that elements of the stolen information on U.S. thermonuclear warhead designs will assist the PRC in building its next generation of mobile ICBMs, which may be tested this year. The Select Committee judges that:

  — The PRC will in fact use a small nuclear warhead on its new generation ICBMs and is likely to continue to work on small thermonuclear warheads based on stolen U.S. design information.

  — These small warhead designs will make it possible for the PRC to develop and deploy missiles with multiple reentry vehicles (MRVs or independently targetable MIRVs). Multiple reentry vehicles increase the effectiveness of a ballistic missile force by multiplying the number of warheads a single missile can carry by as many as ten-fold. Multiple reentry vehicles also can help to counter missile defenses. For example, multiple reentry vehicles make it easier for the PRC to deploy penetration aids with its ICBM warheads in order to defeat anti-missile defenses.

- The PRC plans to supplement its silo-based CSS-4 ICBMs targeted on U.S. cities with mobile ICBMs, which are more survivable because they are more difficult to find than silo-based missiles.

- The PRC has three mobile ICBM programs underway: two road-mobile and one submarine-launched program, all of which will be able to strike the United States. The first of these new mobile ICBMs, the DF-31, may be tested in 1999, and could be deployed as soon as 2002. These mobile missiles require small warhead designs, of which the stolen U.S. design information is the most advanced in the world.

- U.S. satellite manufacturers transferred missile design information and know-how to the PRC without obtaining the legally required export licenses. This information has improved the reliability of PRC rockets useful for military, as well as civilian purposes. The Select Committee says this same information is also useful for the design and improved reliability of future PRC ballistic missiles.

— After the PRC experienced three failed satellite launches since 1992, U.S. satellite makers analyzed the causes and recommended improvements. State Department export licenses are required for such activities, but were not obtained.

— The Select Committee concludes that the PRC implemented some of the recommendations, which increased the reliability of the PRC Long March rockets; these improvements would not have been implemented so soon without that assistance. The Long March rockets are useful for both commercial and military purposes.

- "Agents tied to the PRC's military industries who have illegally provided political contributions may have used these contributions to gain access to U.S. military and commercial technology." [Overview, p. xxxvi]

Counterintelligence Failures

- Despite repeated PRC thefts of the most sophisticated U.S. nuclear weapons technology, security at our national nuclear weapons laboratories still "does not meet even minimal standards," according to the Select Committee.

— Even though the United States discovered in 1995 the PRC's theft of critical design and technical information on thermonuclear warheads, the White House has informed the Select Committee that the President was not briefed about the counterintelligence failures until early 1998; further, appropriate committees of the Congress were not adequately briefed.

— In late 1988, the Department of Energy adopted a counterintelligence and security plan, but "security at the national weapons laboratories will not be satisfactory until at least sometime in the year 2000," according to the Select Committee.

- PRC penetration of our national weapons laboratories spans at least the past several decades and "almost certainly continues to the present."

— Among the labs that have been the primary focus of PRC collection efforts are Los Alamos (in New Mexico), Lawrence Livermore (in California), Oak Ridge (in Tennessee), and Sandia (in New Mexico).

- Through its 3,000 "front companies" in the United States, the PRC has obtained a variety of lesser military technologies, for example, machine tools for building advanced military aircraft, and aircraft engine technology.

High Performance Computers

- The Select Committee judges that, if the PRC were successful in stealing nuclear test codes, computer models, and data from the United States, then it could further accelerate its nuclear development. By using such stolen codes and data in conjunction with High

Performance Computers (HPCs) already acquired by the PRC, the PRC could reduce its need for further nuclear testing to evaluate weapons.

— HPCs are useful for two-dimensional and critical to three-dimensional computer modeling that would be necessary for the PRC to develop, modify, and maintain its nuclear weapons in the absence of physical testing.

Impact on American Security Interests

- In 1997, the PRC stole or illegally obtained classified U.S. developmental research concerning very sensitive detection techniques that, if successfully concluded, could be used to threaten U.S. satellites and submarines.

- In the near term, a PRC deployment of mobile thermonuclear weapons, or neutron bombs, based on stolen U.S. design information, could have a significant effect on the regional balance of power, particularly with respect to Taiwan.

  — PRC deployments of advanced nuclear weapons based on stolen U.S. design information would pose greater risks to U.S. troops and interests in Asia and in the Pacific.

  — While the United States "retains an overwhelming qualitative and quantitative advantage" in deployed strategic nuclear forces, "in a crisis in which the United States confronts the PRC's conventional and nuclear forces at the regional level, a modernized PRC strategic nuclear ballistic missile force would pose a credible direct threat against the United States." The Committee notes that neither the United States nor the PRC has a national ballistic missile defense system.

Liberalized Export Controls

- Recent changes in international and domestic export control regimes have reduced the ability to control transfers of militarily useful technology.

  — The dissolution of COCOM (the Coordinating Committee for Multilateral Export Controls) in 1994 left the United States without an effective, multilateral means to control exports of militarily useful goods and technology.

  — Since 1994, the United States has dramatically liberalized export controls on militarily useful technology.

- Other export control policies and practices that have contributed to the problem include: the expiration of the Export Administration Act in 1994; policy changes in 1995 that reduce the time for national security agencies to consider export licenses; and the 1996 decision to give the Commerce Department the lead role in satellite exporting (a decision reversed by Congress in 1998).

Proliferation of Stolen U.S. Technology

- The PRC has proliferated nuclear and ballistic missile technology to a number of other countries, including regimes hostile to the United States.

  — Among the countries benefitting from such proliferation are Iran, Pakistan, Libya, Saudi Arabia, Syria, and North Korea.

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